

Figure 1

5

10

15

20

25

30

35

BLAST search
against
SwissProt



Identify gene family

ClustalW comparison
with SwissProt top hit



Demonstrates global alignment

BLAST against non-
redundant GPCR db



Demonstrates GPCR sub-family

Figure 2

5

ClustalW Alignment of PFI-020 with P2U purinoceptor 1 (P2U1)

```

10  P2U1..      MAADLGPWNDTNGTWDGD---ELGYR-----CRFNEDFKYVLLPVSYGV
    PFI-020..  MLSILLPSRGRSGSRRGALLLEGASRDMEKVDMTSQEQGLCQFSEKYKQVYLSLAYSI
          * : * * . . . : * : * * . . . : * : * * . . . : * : * * . . . :
15  P2U1..      VCVLGLCLNAVALYIFLCRLKTWNASTTYMFLAVSDALYAASLPLLVYYYARGDHWPF
    PFI-020..  IFILGLPLNGTIVLHWSWGQTKRWSCATTYLVNLMVADLLYVL-LPFLIITYSLDDRWPF
          : : * * * * * : : * * * * * : : * * * * * : : * * * * * :
20  P2U1..      TVLCKLVRFIFYTNLYCSILFLTCISVHRCLGVLRPLRLSLRWGRARYARRVAGAVVVLV
    PFI-020..  ELLCKLVHFLFYINLYGSILLTLCISVHQFLGVCHPLCSLPYTRRHAWLGTTSTTVALV
          : : * * * * * : : * * * * * : : * * * * * : : * * * * * :
25  P2U1..      ACQAPVLYFVTTTSARGGRVTCHDTSAPELFSRFVAYSSVMLGLLFAVPPAVILVCYVIMA
    PFI-020..  LQLLPTLAFSHTDYINGQMIWYDMTSQENFDRLFAYGIVLTLSGFLSLLGHGVLFTDQG
          * : * * * * . : : : * : : * * * * * : * : * : * : . :
30  P2U1..      RRLKPAYGTSGGLPRAKRKSVRTIAVVLAVALFCFLPFHVIRTLYYSPRSLDLSCHTLN
    PFI-020..  ----EPDQ--ARGEPHEDRQ--HSPSQVHPDHTGVWPLHPLFCALP-YHSLLLPHLLS
          : * : * * * : : : * : . . . * : * : : * * * . :
35  P2U1..      AINMAYKVTRPLASANSCLDPVLYFLAGQLRVRFARDAKPTGPSPATPARRRLGLRRSD
    PFI-020..  AFSG-----LPALDGSQCG-----L---QDMEASGECEQLPQ-PSFVLSEFK-GGKNRVR
          * : . * * * * : : * : . . : * * * * . : * * *
    P2U1..      RTDMQRIGDVLGSSEDFRRTTESTPAGESNTKDRL
    PFI-020..  LLQKLRLQ-NKLGEHPAGR--KRCP-G-LN-----RS
          : * : * * . * : * * * * *

```

Figure 3: Stimulation of PFI-020 by 2-methyl-thio-ADP

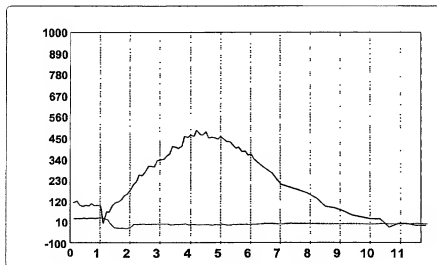


Figure 4: Stimulation of PFI-020 by UTP

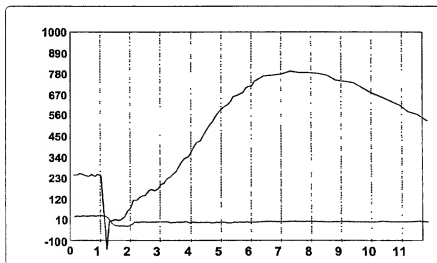
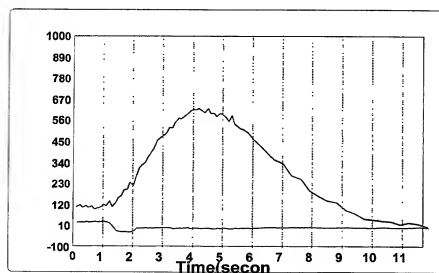


Figure 5: Stimulation of PFI-020 by 2-chloro-ATP**Figure 6: Stimulation of PFI-020 by 2-methyl-thio-ATP**